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C. REMARKS**1. Examiner Interview**

Applicants note with appreciation the telephonic interview conducted between Applicants' undersigned attorney and Examiner Farooq on August 6, 2003. During the interview, Applicants' attorney and the Examiner discussed the primary reference cited in the Office Action (U.S. Pat. No. 5,463,625 issued October 21, 1995 to Yasrebi (hereinafter, "Yasrebi")). In particular, Applicants' attorney pointed out that Yasrebi does not teach or suggest managing adapters in the manner taught and claimed by Applicants. In particular, Applicants teach and claim setting an adapter to a "quasi-open" state in response to receiving a close request. Setting an adapter in such manner is not taught or suggested by Yasrebi, especially in the sections cited in the Office Action. Applicants' attorney further discussed the software simulation environment taught by Yasrebi and how such software simulation does not teach or suggest Applicants' claimed invention. The Examiner asserted that "putting an adapter to sleep" is similar to Applicants' quasi-open mode. In response, Applicants' attorney asserted that Yasrebi does not teach or suggest putting an adapter to sleep or putting an adapter into a quasi-open state (either a real adapter or a simulated adapter). Instead, Yasrebi is describing a simulation environment in which software threads, simulating devices, are put to sleep and woken up for random amounts of time in order to simulate random access to a LAN gateway's resources and to simulate a random amount of connection time between the simulated device and the simulated remote server (see Yasrebi, col. 10, lines 38-64).

Applicants' attorney further discussed the Office Action's rejection of claims 2, 3, 6, 16, 21, and 22 under 35 U.S.C. § 103(a) citing only the Yasrebi reference apparently in combination of "common knowledge" in the art. Applicants' attorney asserted that it would not have been obvious to one of ordinary skill in the art to perform the numerous limitations recited in these claims. The Examiner suggested amending the independent claims by including limitations found in dependent claims that were objected to in the Office Action. In response, Applicants' attorney stated that the "objected to" claims were too limiting and, in absence of art that teaches Applicants' "quasi-open" mode, the Applicants are entitled to the broadest claims presented, namely claims 1, 10, and 20. Consequently, no agreement was reached pertaining to the claims.

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2. Drawings

Applicants note that an indication was not made in the Office Action as to whether the formal drawings filed with the application are acceptable to the Examiner. Applicants respectfully request that the Examiner indicate whether the drawings are acceptable.

3. Summary

Claims 1-27 are currently pending in the application. Of these, Claims 1-4, 6, 7, 9, 10, 13, 16, 17, 19-23, and 27 stand rejected. Claims 5, 8, 11, 12, 14, 15, 18, 24 and 25 have been objected to as depending upon a rejected base claim, but would be allowable if rewritten in independent form. Claims 1, 10, and 20 are independent claims. No claims have been added, amended, or cancelled.

Applicants note with appreciation the allowable subject matter, namely claims 5, 8, 11, 12, 14, 15, 18, 24 and 25, noted in the Office Action (Paper 2, para. 14). For the reasons set forth below, Applicants believe that the remaining claims in the application are also allowable. Applicants, therefore, respectfully request reconsideration of the outstanding rejections and reexamination of the present application in light of the following remarks.

4. Claim Rejections – 35 U.S.C. § 102(b)

Claims 1, 4, 7, 9, 13, 17, 19, 20, 23, 26, and 27 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,463,625 to Yasrebi (hereinafter, "Yasrebi").

Applicants respectfully traverse the rejections.

Claim 1 stands rejected as being anticipated by Yasrebi. Specifically, the Office Action contends that Yasrebi teaches a method comprising (1) receiving a close request (prior to being put to sleep); and (2) setting the adapter to a quasi-open state (put to sleep mode) in response to receiving the close request, citing Yasrebi, col. 10, lines 52-64.

In Claim 1, Applicants claim the following:

1. A method for managing an adapter attached to a Fibre Channel network, said method comprising:
receiving a close request; and
setting the adapter to a quasi-open state in response to receiving the close request.

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On columns 9 - 11, Yasrebi teaches an experimental setup used to establish the workability of Yasrebi's interface mechanism for linking client workstations on a distributed system with external communications networks (col. 9, lines 58-61, col. 9, line 58 - col. 11, line 30). The cited portion of Yasrebi, namely col. 10, lines 52-64, falls somewhat in the middle of this section and teaches programming techniques that were used by Yasrebi to conduct the experimental simulation. In this section, Yasrebi does not teach or suggest "receiving a close request," nor does Yasrebi teach or suggest "setting the adapter to a quasi-open state in response to receiving the close request" as taught and claimed by Applicants. The section of Yasrebi cited in the Office Action is as follows:

The procedure call for each PortOpen command 67 issued by the client to the gateway server actually called a previously generated procedure stub. The call returned a handle from the server. The client then issued a Connect(out) 68 to the gateway that returned when a simulated successful outgoing call was established. The procedure call thread was then "put to sleep" for a random period of time 69 (to simulate random connection time between the LAN workstation application and a remote server), after which Disconnect and PortClose commands 70 and 71 were sequentially issued with the same handle before the thread was terminated 72.

Yasrebi, col. 10, lines 52-64.

Yasrebi is teaching using a simulated PortOpen command. PortOpen is defined by Yasrebi as being a "call for use of a communications port (returns a handle)" (col. 9, lines 20-22). Yasrebi explains that the call returns a "handle" (i.e., an address) from the server. Yasrebi then teaches that the client issues a "Connect(out)" to the gateway that returned when a successful outgoing call was established. A "Connect" procedure is defined by Yasrebi as being a "switched network connectivity request" that "requires connection type for input or output, and, in the case of outgoing calls, requires switched network address, i.e., telephone number" (Yasrebi, col. 9, lines 28-34).

Yasrebi then teaches that, in his simulation, the procedure call thread was "put to sleep" for a random period of time to simulate a random connection time between the LAN workstation application and a remote server. (Yasrebi, col. 10, lines 58-61). After the thread wakes up, Yasrebi teaches that his simulation issues "Disconnect" and PortClose" commands (lines 61-64). Note that Yasrebi does not teach or suggest "receiving a close request" as taught and claimed by

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Applicants. Rather, Yasrebi teaches a simulation wherein a disconnection takes place after a random period of time (no reception of any request is taught or suggested either in the cited section, nor in the flowchart, Fig. 5, to which the cited section refers). In addition, Yasrebi never teaches or suggests "setting the adapter to a quasi-open state in response to receiving the close request" as taught and claimed by Applicants. Instead, Yasrebi is simply teaching a simulation environment where software threads are created to simulate devices, the threads are put to sleep for a random amount of time to simulate a duration of a switched connection, and the simulated switched communications link and port are closed (Yasrebi, Fig. 5, elements 66-71). Yasrebi never teaches or suggests a "quasi-open" state of an adapter, either in his simulation environment or elsewhere. In fact the term "quasi" never even appears in the Yasrebi patent.

Claim 4 was also rejected under 35 U.S.C. § 102(b) as being anticipated by Yasrebi, the Office Action citing the same section (col. 10, lines 52-64) of Yasrebi. Again, Yasrebi does not teach or suggest maintaining a minimal, or any amount, of resources. As explained above, this section of Yasrebi merely describes a software simulation that Yasrebi performed to establish the workability of his proposed embodiment. In the cited section, Yasrebi does not teach or suggest maintaining any amount of resources, nor does Yasrebi teach or suggest simulating the maintenance of a minimal amount of resources. Instead, Yasrebi simulates a single switched connection by starting a thread to simulate the switched connection, simulates the use of a communications port request, simulates a connection through the simulated port, sleeps for a random amount of time to simulate the duration of communication using the switched connection, and simulates the disconnection of the switched communication along with simulating the closing of the simulated port. (Yasrebi col 10, lines 52-64; Fig. 5, elements 66-72).

Claim 7 stands rejected under 35 U.S.C. § 102(b) as being anticipated by Yasrebi, the Office Action citing a section immediately preceding the section used in the rejection of Claim 1 (col. 10, lines 47-52). Claim 7 reads as follows:

7. The method as described in Claim 1 wherein the setting further comprises:
releasing extended resources corresponding with the adapter.

In stark contrast, the cited section of Yasrebi reads as follows:

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After "waking" the device thread 65, a thread for sequential procedure calls for each thread simulating a single connection request was dispatched 66. A procedure PortOpen call was issued to the gateway server for each simulated client application thread 67.

Yasrebi, col. 10, lines 47-52.

Immediately evident from a review of Claim 7 and the section from Yasrebi is the fact that Yasrebi does not teach or suggest anything to do with releasing resources corresponding to an adapter. Again, this section of Yasrebi teaches an experimental software simulation of the workability of Yasrebi's embodiment of a machine that performs switched communications in a heterogeneous network gateway. Yasrebi does not teach or suggest releasing extended resources nor does Yasrebi teach or suggest simulating the release of extended resources corresponding with a network adapter.

Claim 9 also stands rejected under 35 U.S.C. § 102(b) as being anticipated by Yasrebi, the Office Action citing column 10, lines 38-64, in support of this contention.. Claim 9 reads as follows:

- 9 The method as described in Claim 1 wherein the setting further comprises:
determining a current state of the adapter, the current state selected from the group consisting of open, closed, and quasi-open..

The section of Yasrebi cited in support of the rejection reads as follows:

FIG. 5 illustrates the simulation of clients issuing outgoing calls. After starting the workstation 60, common variables and protocols were initiated 61. Multiple independent threads were issued 62 to simulated multiple user devices seeking to issue multiple outgoing calls through the gateway server. For each single simulated device started 63, the thread was put to sleep for a random period of time 64 to simulate the random access to the gateway's resources from a real LAN set-up.

After "waking" the device thread 65, a thread for sequential procedure calls for each thread simulating a single connection request was dispatched 66. A procedure PortOpen call was issued to the gateway server for each simulated client application thread 67.

The procedure call for each PortOpen command 67 issued by the client to the gateway server actually called a previously generated procedure stub. The call returned a handle from the server. The client then issued a Connect(out) 68 to the gateway that returned when a simulated successful outgoing call was established.

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The procedure call thread was then "put to sleep" for a random period of time 69 (to simulate random connection time between the LAN workstation application and a remote server), after which Disconnect and PortClose commands 70 and 71 were sequentially issued with the same handle before the thread was terminated 72.

Again, Yasrebi does not teach or suggest anything to do with the claimed invention. In the software simulation environment described in the recited section, Yasrebi never determines a current state of an adapter (simulated or otherwise), nor does Yasrebi teach an adapter that can have a state that is either "open," "closed," or "quasi-open" as taught and claimed by Applicants. Instead, Yasrebi's simulation simulates multiple devices seeking to issue calls through a simulated LAN gateway. Software threads simulating the devices are put to sleep for a random amount of time to simulate random access to the LAN gateway. When a simulated device establishes a connection, Yasrebi further teaches putting the software thread to sleep to simulate the random period of time that the connection is maintained between the LAN workstation application and a remote server.

Claims 13, 17, and 19 were rejected in the Office Action using the same rationale as that used in the rejection of claims 4, 7, and 9, respectively. Applicants' traversal of the rejections of claims 4, 7, and 9, as described above, applies to the rejections of claims 13, 17, and 19, which are allowable for at least the same reasons as claims 4, 7, and 9 are allowable.

Claims 20, 23, 26, and 27 were rejected in the Office Action using the same rationale as that used in the rejection of claims 1, 4, 7, and 9, respectively. Applicants' traversal of the rejections of claims 1, 4, 7, and 9, as described above, applies to the rejections of claims 20, 23, 26, and 27, which are allowable for at least the same reasons as claims 1, 4, 7, and 9 are allowable.

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5. Claim Rejections – Combination of Yasrebi and “Common Knowledge” Under 35 U.S.C. § 103(a)

Claims 2, 3, 6, 16, 21, and 22 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over a single reference, Yasrebi. The Office Action admits that Yasrebi does not teach:

- (1) determining open state between the adapter and the fibre channel;
- (2) maintaining the open state;
- (3) not toggling a fibre optic light source included with the adapter; and
- (4) receiving a message in a quasi-open state and rejecting a message in response.

Paper 2, page 4, first paragraph.

However, the office action merely concludes, without more, that it “would have been obvious to one of ordinary skill in the art” to incorporate the limitations set forth in claims 2, 3, 6, 16, 21, and 22 with the teachings of Yasrebi.

The Office Action’s obviousness contention is misplaced for at least two reasons. First, as explained in detail above, Yasrebi does not teach or suggest receiving a close request and setting an adapter into a “quasi-open” state in response to the request. Second, notwithstanding the fact that Yasrebi simply does not teach or suggest Applicants’ claimed invention as set forth in the base claims, the additional limitations set forth in claims 2, 3, 6, 16, 21, and 22 are, in their own right, not obvious.

MPEP § 2144.03 states, in part:

If justified, the examiner should not be obliged to spend time to produce documentary proof. If knowledge is of such notorious character that official notice can be taken, it is sufficient so to state. In re Malcolm, 129 F.2d 529, 54 USPQ 235 (CCPA 1942). If the applicant traverses such an assertion the examiner should cite a reference in support of his or her position.

MPEP § 2144.03, second paragraph, emphasis added.

Applicants respectfully traverse the Examiner’s reliance on “common knowledge in the art” and respectfully request the Examiner cite a reference in support of the position taken in the

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Office Action. Applicants traversal of these rejections and the Office Action's reliance on "common knowledge in the art" is detailed below.

Applicants' Claim 2 is as follows:

2. The method as described in Claim 1 wherein the setting further includes:
determining whether a link is in an open state between the adapter and the Fibre Channel network; and
maintaining the link in the open state.

Claim 2 claims that when a link is already established between the adapter and the network and a "close" request is received, the adapter is set into a "quasi-open" mode, however the link itself remains open, even though the adapter is not in an "open" state, but rather the adapter is in a quasi-open state. This is different from the prior art that (a) does not teach or suggest a "quasi-open" state, and (b) maintains the link in the open state when the adapter is open and maintains the link in the closed state when the adapter is closed (see Applicants' Figures 2 and 3 describing the prior art's handling of a device toggling between "open" and "closed" states). Therefore, maintaining the link in the open state while the adapter is set in a "quasi-open" state is not taught or suggested in the prior art.

Applicants' Claim 3 is as follows:

3. The method as described in Claim 2 wherein the maintaining further includes not toggling a fiber optic light source included with the adapter.

Claim 3 is dependent on Claim 2 and, therefore, is not obvious by "common knowledge" in the prior art for at least the reasons set forth above in the discussion of Claim 2. Furthermore, claim 3 is not obvious by "common knowledge" as it runs counter to the way in which adapters fitted with fiber optic light sources behave when performing a state change. In a Fibre channel network, when an adapter's fiber optic light source toggles it causes other devices on the Fiber channel interconnect to reinitialize in order to determine which devices are connected to the Fibre channel. The prior art teaches that the light source is toggled when a device's state is changed so that the other devices on the Fiber channel reinitialize and determine which devices are on the Fibre channel. However, Applicants found that the re-initialization of devices is

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costly. Applicants' claimed invention, as claimed in Claim 3, reduces the cost of re-initialization by not toggling the fiber optic light, thereby preventing the other devices from re-initializing.

Applicants' Claim 6 is as follows:

6. The method as described in Claim 1 further comprising:
receiving a message from a device attached to the Fibre Channel network
while in the quasi-open state; and
sending a reject message in response to the received message.

The setting an adapter in a "quasi-open" state is claimed by Applicants in Claim 1. Prior to Applicants' invention, adapters were either "open" or "closed." Claim 6 claims one way that an adapter set to the "quasi-open" state can respond when it receives a message from another device on the network. In particular, the device with its adapter in the "quasi-open" state sends a rejection message back to the requesting device. It is unimaginable that it is "common knowledge" in the prior art to send such a rejection message when the prior art does not teach setting an adapter in a "quasi-open" mode in the first place.

Claim 16 was rejected using the same rationale that was used to reject claim 6. Applicants' traversal of the rejection of claim 6, as described above, applies to the rejections of claim 16, which are allowable for at least the same reasons as claim 6 is allowable.

Claims 21 and 22 were rejected using the same rationale that was used to reject claims 2 and 3, respectively. Applicants' traversal of the rejections of claims 2 and 3, as described above, therefore applies to the rejections of claims 21 and 22, which are allowable for at least the same reasons as claims 21 and 22 are allowable.

As a result of the foregoing, Applicants have traversed the rejections of claims 2, 3, 6, 16, 21, and 22. In addition, Applicants have traversed the assertion set forth in the Office Action that the limitations set forth in these claims is simply "common knowledge." Applicants, therefore, respectfully request that the Examiner cite references in support of the position taken in the Office Action as provided in MPEP § 2133.03. Otherwise, Applicants assert that the

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forementioned claims are allowable and the rejections set forth in the Office Action should be withdrawn as such rejections are without merit.

6. Claim Rejection – 35 U.S.C. § 103(a) – Combination of Yasrebi in view of Ho

Claim 10 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Yasrebi in view of U.S. Pat. No. 6,038,235 to Ho et al. (hereinafter, "Ho"). Applicants respectfully traverse the rejection.

Claim 10 is an information handling claim which includes computer system components, such as processors, a memory, a nonvolatile storage device, and a fibre channel adapter along with a program for managing the Fibre Channel adapter. The program steps for managing the Fibre Channel adapter are analogous to the method steps set forth in Applicants' claim 1. Accordingly, the Office Action cites the same section of Yasrebi (col. 10, lines 52-64) as was cited in the rejection of Claim 1. Applicants' traversal of Claim 1, as discussed in detail above, is equally applicable to the traversal of Claim 10.

The Office Action admits that Yasrebi teaches nothing about Fibre Channel (Paper 5, third paragraph under Para. no. 13). The Office Action therefore cites Ho as teaching the hardware elements recited in claim 10, including the Fibre Channel. Ho, however, focuses on automatic arbitration and communication control of a Fibre Channel. Ho does not teach or suggest the "quasi-open" state of a Fibre Channel adapter, as taught and claimed by Applicants. Indeed, the Office Action does not assert or cite Ho for the proposition of teaching such use of a Fibre Channel adapter or use of such a state in a Fibre Channel network. Instead, Ho teaches the use of an "ARBITRATE" primitive on the fibre channel loop.

Taken alone or in combination with one another, neither Yasrebi nor Ho teach or suggest an information handling system that includes a Fibre Channel adapter and includes a program that (1) receives a close request, and (2) sets the adapter into a quasi-open state in response to receiving the close request, as taught and claimed by Applicants.


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Conclusion

As a result of the foregoing, it is asserted by Applicants that the remaining claims in the Application are in condition for allowance, and Applicants respectfully request an early allowance of such claims.

Applicants respectfully request that the Examiner contact the Applicants' attorney listed below if the Examiner believes that such a discussion would be helpful in resolving any remaining questions or issues related to this Application.

Respectfully submitted,

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